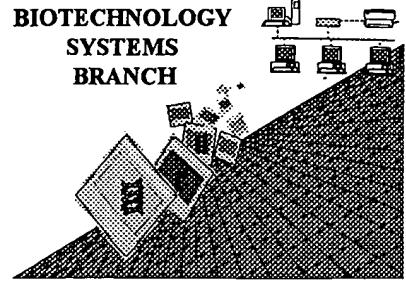


RAW SEQUENCE LISTING

ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/256,156

Art Unit / Team No.: 0186

Date Processed by STIC: 3/16/99

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,

2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

ARTI SHAH 703-308-4212

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/256,156DATE: 03/16/1999
TIME: 09:22:49

Input Set: I256156.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

1 <110> APPLICANT: GILLIES, Stephen D
 2 LO, Kin-Ming
 3 LAN, Yan
 4 WESOLOWSKI, John
 5 <120> TITLE OF INVENTION: Enhancing the Circulating Half-life of
 6 Antibody-based Fusion Proteins
 7 <130> FILE REFERENCE: LEX-003
 8 <140> CURRENT APPLICATION NUMBER: US/09/256,156
 9 <141> CURRENT FILING DATE: 1999-02-24
 10 <150> EARLIER APPLICATION NUMBER: US 60/075,887
 11 <151> EARLIER FILING DATE: 1998-02-25
 12 <160> NUMBER OF SEQ ID NOS: 8
 13 <170> SOFTWARE: PatentIn Ver. 2.0
 14 <210> SEQ ID NO 1
 15 <211> LENGTH: 447
 16 <212> TYPE: PRT
 17 <213> ORGANISM: Homo sapiens
 18 <220> FEATURE:
 19 <223> OTHER INFORMATION: IGG-1 CHAIN C REGION
 20 <400> SEQUENCE: 1

Does Not Comply
Connected Diskette Needed

JPR 1-5

All items 10 on Env
summary
sheet

W--> 21 Xaa
 22 1 5 10 15
 W--> 23 Xaa
 24 20 25 30
 W--> 25 Xaa
 26 35 40 45
 W--> 27 Xaa
 28 50 55 60
 W--> 29 Xaa
 30 65 70 75 80
 W--> 31 Xaa
 32 85 90 95
 W--> 33 Xaa
 34 100 105 110
 W--> 35 Xaa Xaa Xaa Xaa Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
 36 115 120 125
 37 Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
 38 130 135 140
 39 Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
 40 145 150 155 160
 41 Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 42 165 170 175
 43 Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
 44 180 185 190

PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/256,156DATE: 03/16/1999
TIME: 09:22:49

Input Set: I256156.RAW

45 Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
 46 195 200 205
 47 Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
 48 210 215 220
 49 Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
 50 225 230 235 240
 51 Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
 52 245 250 255
 53 Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
 54 260 265 270
 55 Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
 56 275 280 285
 57 Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
 58 290 295 300
 59 Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
 60 305 310 315 320
 61 Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
 62 325 330 335
 63 Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
 64 340 345 350
 65 Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
 66 355 360 365
 67 Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
 68 370 375 380
 69 Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
 70 385 390 395 400
 71 Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
 72 405 410 415
 73 Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
 74 420 425 430
 75 His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 76 435 440 445

77 <210> SEQ ID NO 2

78 <211> LENGTH: 443

79 <212> TYPE: PRT

80 <213> ORGANISM: Homo sapiens

81 <220> FEATURE:

82 <223> OTHER INFORMATION: IGG-2 CHAIN C REGION

83 <400> SEQUENCE: 2

- 10
Jem

W--> 84 Xaa
 85 1 5 10 15
 W--> 86 Xaa
 87 20 25 30
 W--> 88 Xaa
 89 35 40 45
 W--> 90 Xaa
 91 50 55 60
 W--> 92 Xaa
 93 65 70 75 80
 W--> 94 Xaa Xaa

PAGE: 3

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/256,156DATE: 03/16/1999
TIME: 09:22:49

Input Set: I256156.RAW

Jew 10

95	85	90	95
W--> 96	Xaa		
97	100	105	110
W--> 98	Xaa Xaa Xaa Xaa Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu		
99	115	120	125
100	Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys		
101	130	135	140
102	Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser		
103	145	150	155
104	Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser		
105	165	170	175
106	Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn		
107	180	185	190
108	Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn		
109	195	200	205
110	Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro		
111	210	215	220
112	Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro		
113	225	230	235
114	Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr		
115	245	250	255
116	Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn		
117	260	265	270
118	Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg		
119	275	280	285
120	Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val		
121	290	295	300
122	Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser		
123	305	310	315
124	Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys		
125	325	330	335
126	Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu		
127	340	345	350
128	Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe		
129	355	360	365
130	Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu		
131	370	375	380
132	Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe		
133	385	390	395
134	Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly		
135	405	410	415
136	Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr		
137	420	425	430
138	Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys		
139	435	440	
140	<210> SEQ ID NO 3		
141	<211> LENGTH: 494		
142	<212> TYPE: PRT		
143	<213> ORGANISM: Homo sapiens		
144	<220> FEATURE:		

PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/256,156DATE: 03/16/1999
TIME: 09:22:49

Input Set: I256156.RAW

145 <223> OTHER INFORMATION: IGG-3 CHAIN C REGION
 146 <400> SEQUENCE: 3
 W--> 147 Xaa
 148 1 5 10 15
 W--> 149 Xaa
 150 20 25 30
 W--> 151 Xaa
 152 35 40 45
 W--> 153 Xaa
 154 50 55 60
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 156 65 70 75 80
 W--> 157 Xaa
 158 85 90 95
 W--> 159 Xaa
 160 100 105 110
 W--> 161 Xaa Xaa Xaa Xaa Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
 162 115 120 125
 163 Ala Pro Cys Ser Arg Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
 164 130 135 140
 165 Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
 166 145 150 155 160
 167 Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 168 165 170 175
 169 Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
 170 180 185 190
 171 Leu Gly Thr Gln Thr Tyr Thr Cys Asn Val Asn His Lys Pro Ser Asn
 172 195 200 205
 173 Thr Lys Val Asp Lys Arg Val Glu Leu Lys Thr Pro Leu Gly Asp Thr
 174 210 215 220
 175 Thr His Thr Cys Pro Arg Cys Pro Glu Pro Lys Ser Cys Asp Thr Pro
 176 225 230 235 240
 177 Pro Pro Cys Pro Arg Cys Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro
 178 245 250 255
 179 Pro Cys Pro Arg Cys Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro
 180 260 265 270
 181 Cys Pro Arg Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe
 182 275 280 285
 183 Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 184 290 295 300
 185 Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 186 305 310 315 320
 187 Gln Phe Lys Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 188 325 330 335
 189 Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Phe Arg Val Val Ser Val
 190 340 345 350
 191 Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 192 355 360 365
 193 Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 194 370 375 380

PAGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/256,156DATE: 03/16/1999
TIME: 09:22:49

Input Set: I256156.RAW

195 Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
 196 385 390 395 400
 197 Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
 198 405 410 415
 199 Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Ser Gly
 200 420 425 430
 201 Gln Pro Glu Asn Asn Tyr Asn Thr Thr Pro Pro Met Leu Asp Ser Asp
 202 435 440 445
 203 Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 204 450 455 460
 205 Gln Gln Gly Asn Ile Phe Ser Cys Ser Val Met His Glu Ala Leu His
 206 465 470 475 480
 207 Asn Arg Phe Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 208 485 490

209 <210> SEQ ID NO 4
 210 <211> LENGTH: 444
 211 <212> TYPE: PRT
 212 <213> ORGANISM: Homo sapiens
 213 <220> FEATURE:
 214 <223> OTHER INFORMATION: IGG-4 CHAIN C REGION
 215 <400> SEQUENCE: 4

W--> 216 Xaa
 217 1 5 10 15

W--> 218 Xaa
 219 20 25 30

W--> 220 Xaa
 221 35 40 45

W--> 222 Xaa
 223 50 55 60

W--> 224 Xaa
 225 65 70 75 80

W--> 226 Xaa
 227 85 90 95

W--> 228 Xaa
 229 100 105 110

W--> 230 Xaa Xaa Xaa Xaa Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
 231 115 120 125

232 Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys

233 130 135 140

234 Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser

235 145 150 155 160

236 Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser

237 165 170 175

238 Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser

239 180 185 190

240 Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn

241 195 200 205

242 Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro

243 210 215 220

244 Ser Cys Pro Ala Pro Glu Phe Leu Gly Pro Ser Val Phe Leu Phe

Input Set: I256156.RAW

Line ? Error/Warning

Original Text

21 W "N" or "Xaa" used: Feature required
23 W "N" or "Xaa" used: Feature required
25 W "N" or "Xaa" used: Feature required
27 W "N" or "Xaa" used: Feature required
29 W "N" or "Xaa" used: Feature required
31 W "N" or "Xaa" used: Feature required
33 W "N" or "Xaa" used: Feature required
35 W "N" or "Xaa" used: Feature required
84 W "N" or "Xaa" used: Feature required
86 W "N" or "Xaa" used: Feature required
88 W "N" or "Xaa" used: Feature required
90 W "N" or "Xaa" used: Feature required
92 W "N" or "Xaa" used: Feature required
94 W "N" or "Xaa" used: Feature required
96 W "N" or "Xaa" used: Feature required
98 W "N" or "Xaa" used: Feature required
147 W "N" or "Xaa" used: Feature required
149 W "N" or "Xaa" used: Feature required
151 W "N" or "Xaa" used: Feature required
153 W "N" or "Xaa" used: Feature required
155 W "N" or "Xaa" used: Feature required
157 W "N" or "Xaa" used: Feature required
159 W "N" or "Xaa" used: Feature required
161 W "N" or "Xaa" used: Feature required
216 W "N" or "Xaa" used: Feature required
218 W "N" or "Xaa" used: Feature required
220 W "N" or "Xaa" used: Feature required
222 W "N" or "Xaa" used: Feature required
224 W "N" or "Xaa" used: Feature required
226 W "N" or "Xaa" used: Feature required
228 W "N" or "Xaa" used: Feature required
230 W "N" or "Xaa" used: Feature required

Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>09/256156</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 <input type="checkbox"/> Wrapped Nucleics	<p>The number/text at the end of each line "wrapped" down to the next line.</p> <p>This may occur if your file was retrieved in a word processor after creating it.</p> <p>Please adjust your right margin to .3, as this will prevent "wrapping".</p>	
2 <input type="checkbox"/> Wrapped Aminos	<p>The amino acid number/text at the end of each line "wrapped" down to the next line.</p> <p>This may occur if your file was retrieved in a word processor after creating it.</p> <p>Please adjust your right margin to .3, as this will prevent "wrapping".</p>	
3 <input type="checkbox"/> Incorrect Line Length	<p>The rules require that a line not exceed 72 characters in length. This includes spaces.</p> <p>All text must be visible on page.</p>	
4 <input type="checkbox"/> Misaligned Amino Acid Numbering	<p>The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.</p>	
5 <input type="checkbox"/> Non-ASCII	<p>This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.</p> <p>Please ensure your subsequent submission is saved in ASCII text so that it can be processed.</p>	
6 <input type="checkbox"/> Variable Length	<p>Sequence(s) <input type="checkbox"/> contain n's or Xaa's which represent more than one residue.</p> <p>As per the rules, each n or Xaa can only represent a single residue.</p> <p>Please present the maximum number of each residue having variable length and indicate in the (ix) features section that some may be missing.</p>	
7 <input type="checkbox"/> Wrong Designation	<p>Sequence(s) <input type="checkbox"/> contain amino acid or nucleic acid designators which are not standard representations as per the Sequence Rules (Please refer to paragraph 1.822)</p>	
8 <input type="checkbox"/> Skipped Sequences (OLD RULES)	<p>Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence:</p> <p>(2) INFORMATION FOR SEQ ID NO:X:</p> <p>(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")</p> <p>(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:</p> <p>This sequence is intentionally skipped</p> <p>Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).</p>	
9 <input type="checkbox"/> Skipped Sequences (NEW RULES)	<p>Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence.</p> <p><210> sequence id number</p> <p><400> sequence id number</p> <p>000</p>	
10 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	<p>Use of n's and/or Xaa's have been detected in the Sequence Listing.</p> <p>Use of <220> to <223> is MANDATORY if n's or Xaa's are present.</p> <p>In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.</p>	
11 <input type="checkbox"/> Use of <213>Organism (NEW RULES)	<p>Sequence(s) <input type="checkbox"/> are missing this mandatory field or its response.</p>	
12 <input type="checkbox"/> Use of <220>Feature (NEW RULES)	<p>Sequence(s) <input type="checkbox"/> are missing the <220>Feature and associated headings.</p> <p>Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"</p> <p>Please explain source of genetic material in <220> to <223> section.</p> <p>(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32)</p> <p>(Sec. 1.823 of new Sequence Rules)</p>	
13 <input type="checkbox"/> PatentIn ver. 2.0 "bug"	<p>Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).</p> <p>Instead, please use "File Manager" or any other means to copy file to floppy disk.</p>	